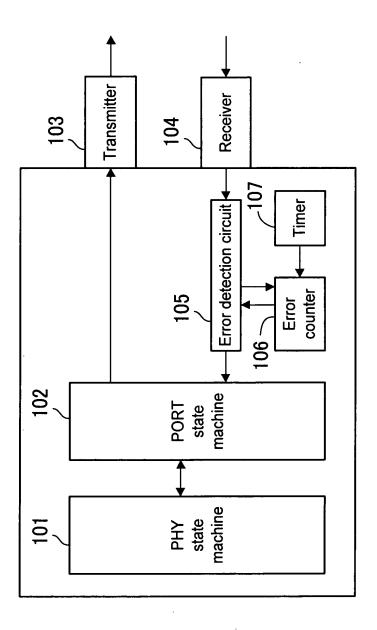
FIG.1



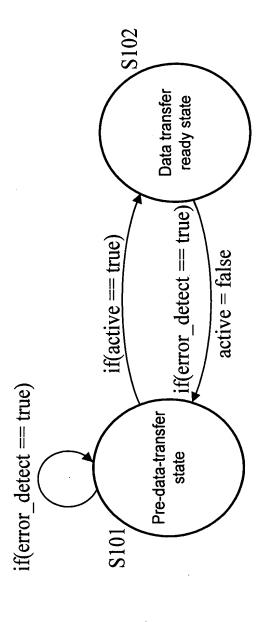


FIG.3

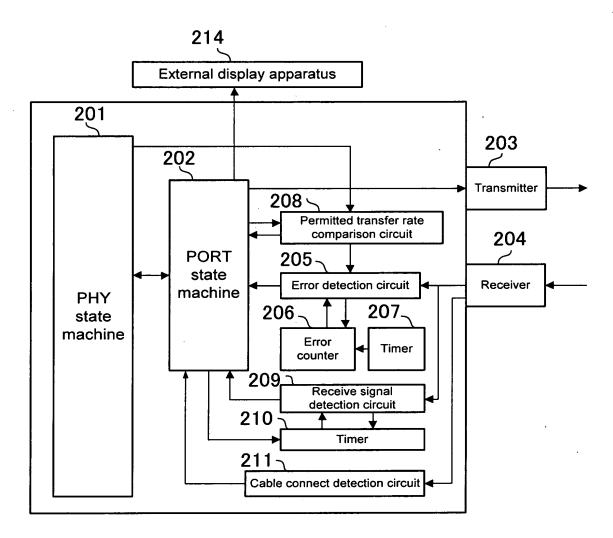


FIG.

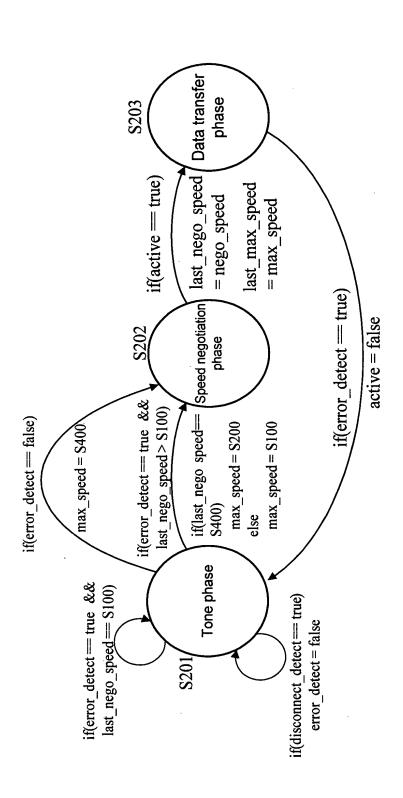
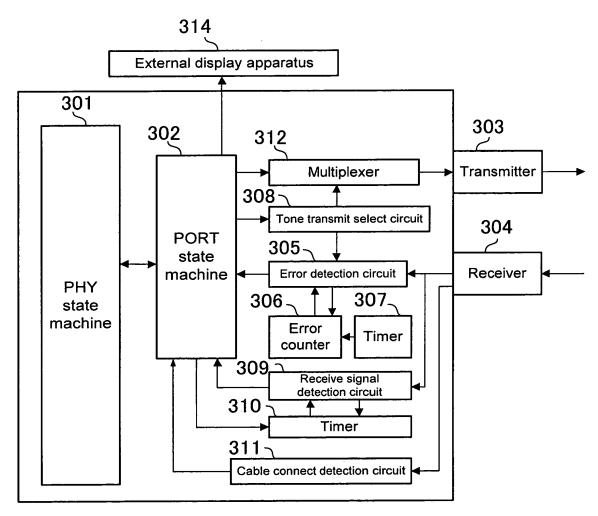


FIG.5



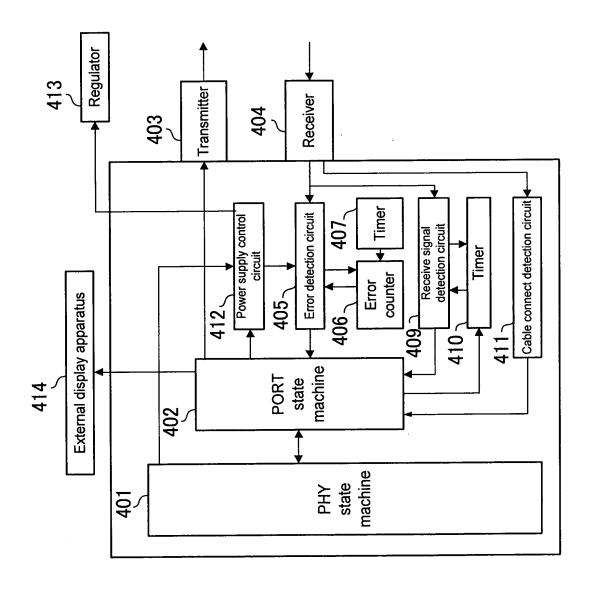
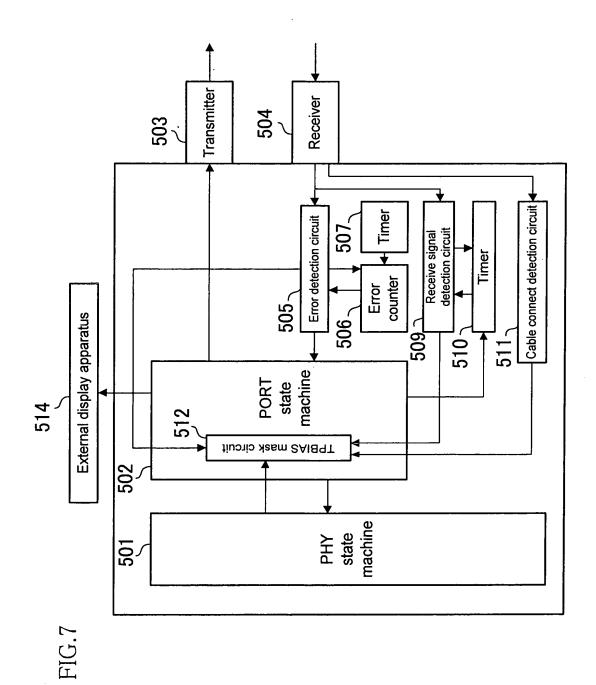
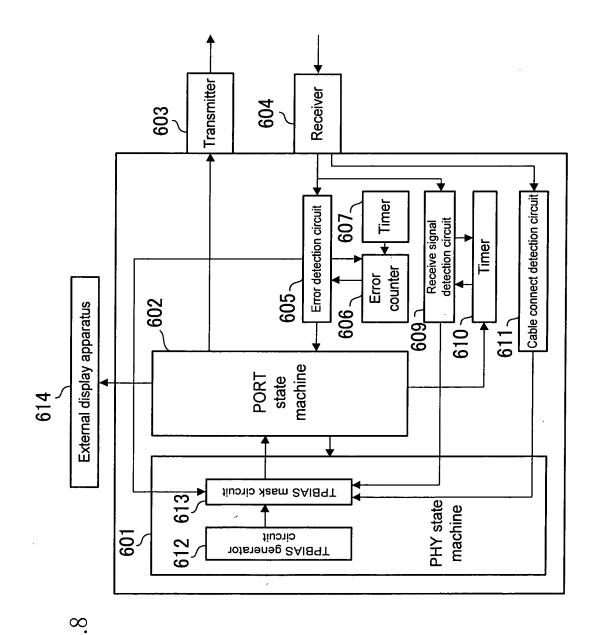
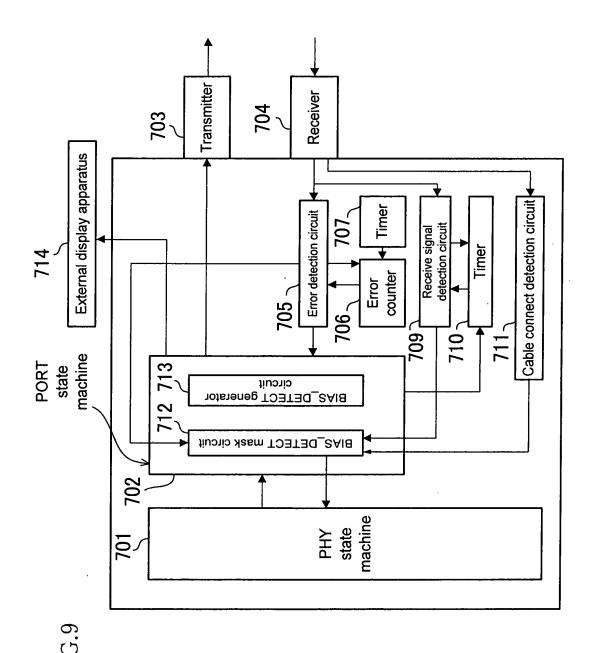
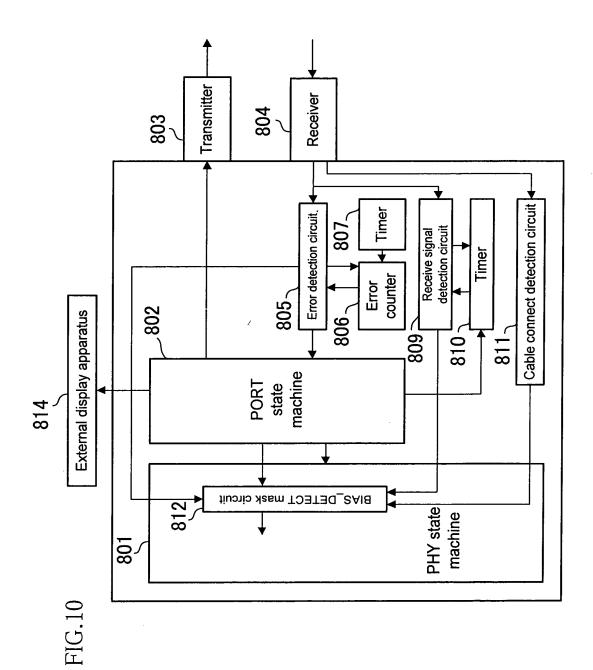


FIG.









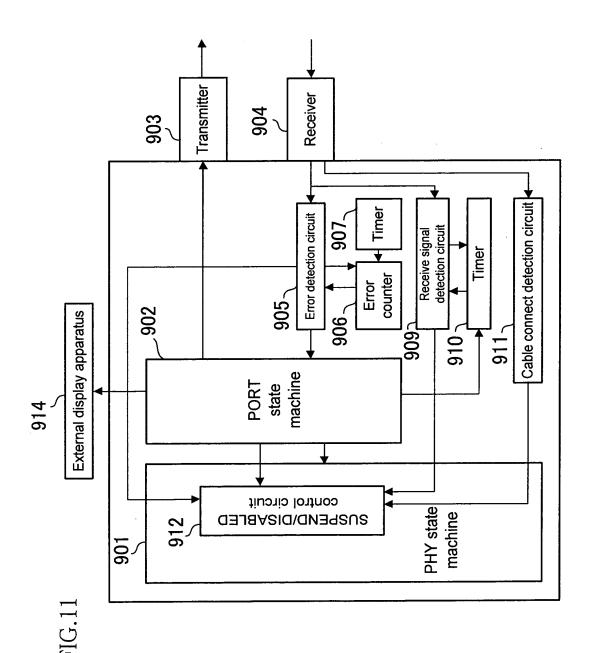


FIG.12

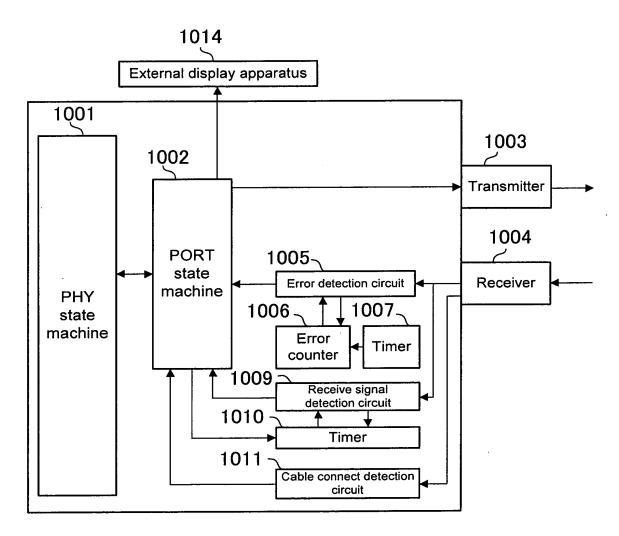
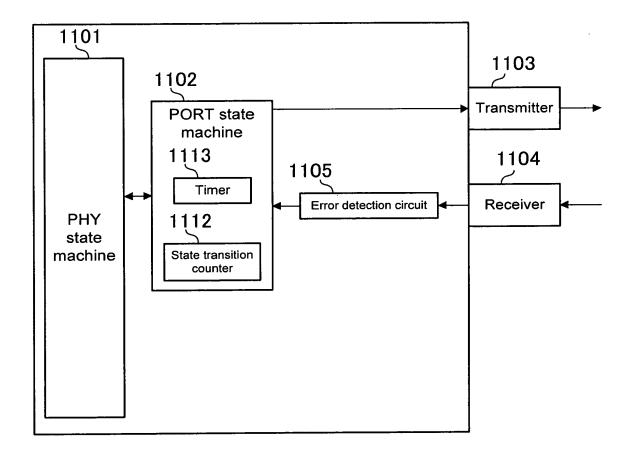
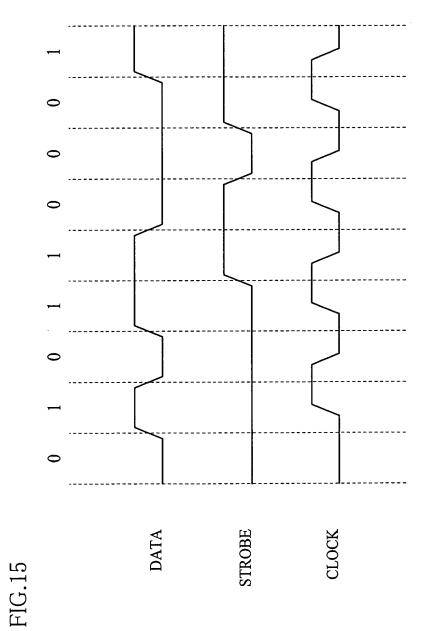


FIG.13

FIG.14

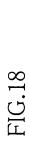


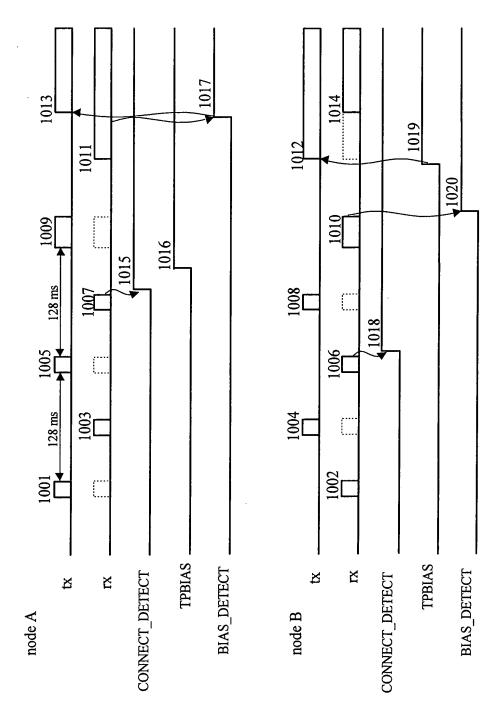


Transmit Arbi	Transmit Arbitration Signal		
ARB_A_Tx	ARB_B_Tx	Line State	Comment
Z	Z	IDLE	Transmitted to indicate gap
٢	c	TX_REQUEST	Transmitted to parent node in order to request access to bus
7	•	TX_GRANT	Transmitted to child node when access to bus granted
٢	<del>,</del>	TX_PARENT_NOTIFY	Transmitted to candidate parent node during tree-ID phase
7	-	TX_DISABLE_NOTIFY	Transmitted in order to disable
0	0	TX_SUSPEND	Transmitted in order to suspend connected port
0	<del></del>	TX_DATA_PREFIX	Transmitted before packet data or before packet data of linked subaction
-	7	TX_CHILD_NOTIFY	Transmitted to child node in order to acknowledge PARENT_NOTIFY
-	7	TX_IDENT_DONE	Transmitted to parent node in order to indicate conclusion of self-ID phase
-	0	TX_DATA_END	Transmitted at time of termination of packet transfer
-	_	BUS_RESET	Transmitted in order to reconfigure bus

FIG.17

Receive Arbi	Receive Arbitration Signal		
ARB_A_Rx	ARB_B_Rx	Line State	Comment
7	Z	IDLE	PHY of neighboring connected node is nonoperational
7	c	RX_PARENT_NOTIFY	PHY of neighboring connected node is attempting to become child
7	•	RX_REQUEST_CANCEL	PHY of neighboring connected node has cancelled request
7	1	RX_IDENT_DONE	PHY of child node has concluded self-ID phase
c	7	RX_SELF_ID_GRANT	PHY of parent node has granted access to bus for purpose of self-ID
<b>O</b>	7	RX_REQUEST	PHY of child node is requesting access to bus
	,	RX_ROOT_CONTENTION	PHY of this node and of neighboring connected node are both attempting to become child nodes
0	0	RX_GRANT	PHY of parent node has granted control of bus
		RX_SUSPEND	Neighboring connected node is attempting to suspend this node
0	-	RX_PARENT_HANDSHAKE	PHY of neighboring connected node is acknowledging PARENT_NOTIFY
		RX_DATA_END	PHY of neighboring connected node has terminated transmission of data block and is releasing bus
-	,	RX_CHILD_HANDSHAKE	PHY of neighboring connected node is acknowledging TX_CHILD_NOTIFY
-	7	RX_DISABLE_NOTIFY	PHY of neighboring connected node is attempting to disable this node
<del></del>	0	RX_DATA_PREFIX	PHY of neighboring connected node is attempting to transmit packet data or is attempting to transmit more data after terminating transmission of data block
1	1	BUS_RESET	Transmitted in order to reconfigure bus





7

	DATA		DATA				D0	]`	Data transfer phase		DATA		DATA				00	] }	Data transfer phase
2029 2035	keep_speed end_nego ]	2030 2036	keep_speed end_nego ]		S200	2031 2037	B3	1	Data tra	2032 2038	nd nego	133 2039	ogau pr		S200	2034 2040	B2 B3		Data tra
2015 2023	random_data ke	2016 2024	random_data	2017		2018 2025	B1		Speed negotiation phase	2019 2026	random_data	20 202	random data ke	2021		2022 2028	B1		Speed negotiation phase
2009	random_data higher_speed	2002 2010 2	random_data   higher_speed		S100	2011	B1 B2		Speed n	2005 2012 2	random_data higher_speed	2013	random_data higher_speed	2007	S100	2014	B1 B2		Speed ne
node A 2001	X X	. 21	X	2003	peer_speed		state	J		node B	ţ	2006	X.		peer_speed	20	state		